

OHEC
373.1909713
059 DE/C-A
C1

ART BULLETIN

NUMBER TWO

DRAWING



Alfred Howell

DEPARTMENT OF EDUCATION, ONTARIO

TORONTO

1927

*Copyright by the
Minister of Education, Ontario
1927*

NOTE

The basic material of this and other Art Bulletins was prepared by The National Institute of Arts.

Later, the Department of Education of Ontario, acting upon the advice of several experts in art and in teaching, acquired the rights and revised the material.

These Bulletins are issued to any persons in the Province of Ontario who are interested in any of the phases of art covered by the Bulletins, and desirous of self-improvement.

It is the hope of the Department of Education that the matter and the illustrations are sufficiently clear and simple to enable the individual to work out the elements of the subject himself.

Messrs. Ralph McMullen, H. McCrea, Herbert Palmer, Frank Carmichael, Arthur Lismer, Alfred Howell, and S. W. Perry have all had some part in the preparation of these Bulletins.

Copies of the Bulletin may be obtained free on application to the Department of Education, Parliament Buildings, Toronto.

CONTENTS

| | PAGE |
|-----------------------------------------------------------|------|
| INTRODUCTION..... | 3 |
| Value of Drawing, The..... | 4 |
| Drawing in Lead-pencil..... | 4 |
| Drawing in Outline..... | 5 |
| Object Drawing..... | 5 |
| Proportions of Object and Background..... | 6 |
| To Estimate Proportion..... | 6 |
| Measurement..... | 7 |
| Accented Outline for Expression..... | 9 |
| Light and Shade..... | 10 |
| Scale of Values..... | 11 |
| Surfaces..... | 14 |
| Reflected Light..... | 16 |
| Light and Local Colour..... | 19 |
| Direction of Line..... | 20 |
| Pen Drawing..... | 22 |
| Materials..... | 23 |
| Use of Chinese White..... | 25 |
| Position of the Hand—First position, second position..... | 25 |
| Tone in Line Work and Exercises in Line..... | 26 |
| Variation in Thickness and Direction of Line..... | 27 |
| Exercises in Line..... | 28 |
| Ruled Lines..... | 29 |
| Tone in Line Work..... | 29 |
| Gradation..... | 29 |
| Radiation..... | 30 |
| Cross-Hatching..... | 31 |
| Line in Cast Shadow..... | 31 |
| Texture..... | 31 |
| Value of the White Paper..... | 33 |
| Local Colour and Surface..... | 33 |
| Aerial Perspective in Line..... | 34 |
| Selection and Observation..... | 35 |
| Suggested Exercises..... | 36 |
| BIBLIOGRAPHY..... | 37 |

DRAWING

INTRODUCTION

This Bulletin has been prepared in the hope that it may stimulate clearer thinking on the subject of drawing. It is generally conceded that art has not yet come into its own in Canada, and although the beginnings of strong growth are shown in the establishment of art courses in schools, of art galleries, and of museums, there is much need for the study of the fundamentals in art.

Drawing, one of the important means of education, is a language, breathes life into cold facts, and transforms the commonplaces of life through self-expression, working according to well defined laws into works of art.

We can have no art expression without drawing; indeed, drawing is the basis of all art expression. And although style may vary from the crude efforts of primitive man to the consummate skill shown by some of the modern draughtsmen, yet drawing is found to be the rock upon which is built the best creative effort.

A fuller appreciation will result in greater skill in drawing, for true appreciation of art enriches life, and because it concerns the higher things in life—the finer emotions, it is a constant source of joy. Personal appreciation is the result of individual experience, and this experience can come only through contact with the realities of art founded upon the best principles.

As a country growing in manufactures, Canada will need all the support of art possible, for art and industry are inseparable. There must be a sane relationship between design and manufacture if the products of the factories are to meet the competition of the world. It is with this thought in view that educationists have now come to realize the supreme importance of art in education, and are seeking to develop, not only skill of hand, but a mind to appreciate the beautiful in life.

THE VALUE OF DRAWING

Drawing is the foundation of all art expression. It should hold a relatively high place in any scheme of education, for it is now recognized as one of the most valuable assets of man in whatever business or profession he may be engaged.

It cannot be denied that drawing, indeed, art of any kind, has in the past been regarded as a frill, but the practical benefits derived from its study, in the appreciation of beauty, the development of the perceptive powers, and the cultivation of the hand, have fully demonstrated the necessity for a more intense study of the subject.

There can be no great national progress without a full comprehension of the meaning and value of art, for one of the greatest tests of the ability of industry to compete in the world's markets to-day lies in the extent to which it can apply the principles of art.

Education will realize the increasing necessity for a more thorough training in drawing, not only from an economic point of view, but because of its great cultural value.

To a great many people drawing is purely descriptive, that is, a medium used to describe the outward appearance of things.

But it does more than this; it expresses ideas, thought, and sentiment. It teaches us to select and arrange, to dispense with mere photographic representation, to translate cold facts into things of beauty.

DRAWING IN LEAD-PENCIL

NOTE.—For the general purpose of pencil drawing a 3 or 4B pencil is most desirable. This can be sharpened with varied points and edges to give the required quality of line.

The lead-pencil is a most useful and sympathetic tool, a medium capable of various modes of expression, possessing a liveliness and charm as fine as any other medium. It is capable of accentuating the contrasts of light and dark very strongly, and, if need be, many varied and intermediate tones may be shown.

There is hardly a limit to the possibilities of the use of the lead-pencil; but its use must be approached with care and sympathy. It lends itself to shading and modelling more readily than any other medium applied with a point. This suggests that mastery of outline is the first consideration.

DRAWING IN OUTLINE

Outline was the earliest mode of expression among primitive peoples. Indeed, we might say that it is the Alpha and the Omega of art. There is no doubt that the typical power of outline or contour drawing was to the ancients the most ready and characteristic means of expression.

And although outline does not exist in reality (and one might presume that it is a convention), it is used for depicting the boundaries between different tone values. The simplifying of masses by means of outline is seen, perhaps, in a most forcible manner in the wall decorations of the ancient Egyptians and in the vase paintings of the Greeks, both in their own way showing a marvellous power of characterization and possessing a fine ornamental value and quality of line.

Light and shade are not attempted in these works, but they possess a remarkable charm in their simplicity of treatment, are sensitively rendered, and possess so much truth in the representation of bone, muscle, tendon, and flesh, that we may well doubt whether, in any subsequent period of art history, there has been better drawing. It was outline drawing born of profound knowledge, and shows itself to be a most powerful agent of expression.

Drawing, after all, is only a means to an end, but it is the road over which all must travel if success is to be achieved in artistic work.

OBJECT DRAWING

The word "object" covers a multitude of varied forms—all natural and manufactured things—and when we can see through the unessential details the basic structure which is the type form—the cone, pyramid, cube, cylinder—we gain experience and valuable insight into the unity, nature, and kinship of all forms. The study of object drawing should be the first step

in the study of form, which is dependent on some knowledge of proportion and perspective. The real foundation of object drawing is in the construction of type solids. Even cubes and cylinders and pyramids are interesting to draw if we take the proper attitude toward them. The advantage of possessing the ability to draw these forms is obvious, when we consider that all large objects, such as automobiles, trolley cars, buildings, and furniture, are based, so far as their general forms are concerned, on the simple foundation forms such as cubes, cylinders, prisms, cones, and pyramids.

PROPORTIONS OF OBJECT AND BACKGROUND

If the student can acquire the habit of reducing objects in some degree to these basic forms and considering carefully the relative sizes of their dimensions—the proportion of the parts, his work will be greatly simplified. By so doing the perspective and controlling planes can be stated with greater force and accuracy. It will be seen, moreover, in the more advanced stages of drawing, even in the study of the human and animal forms, that these basic forms are applicable.

When preparing to make a drawing, carefully observe the model, concentrating on the chief characteristics, proportions, and construction.

Decide its position in perspective, whether parallel or angular; whether above, below, or on a level with the eye. Then make a mental picture of the model as a whole, eliminating unnecessary detail and reducing it to a few simple planes and masses. To learn what to look for and what to overlook is one of the first essentials in good drawing. Only too often the student is attracted by too many secondary details, thus losing the conception of the whole.

Concentration on broad essentials is therefore the first consideration. Unless this power of seeing things as a whole is developed, drawings become stereotyped and lacking in vitality and imagination.

TO ESTIMATE PROPORTION

The skilful draughtsman can dispense with any mechanical means of gauging proportion, his eye being so trained that a

subject is felt intuitively. But this so-called training of the eye can come only with long practice. Thus we find that the best draughtsmen have had to undergo what might appear to be severe methods of getting proportion. To arrive at the proper proportional dimensions of a subject, the student must train his eye. It is a study of comparisons.

How does the height compare with the depth, and how do the various parts compare with each other? What is the relation of the important points of location to each other? Where it is possible to have a definite knowledge of the skeleton, or framework, underneath the object, it is of great value, and often settles the outside dimensions.

MEASUREMENT

A method commonly used to prove the measurement of proportions is to hold the pencil before the eye, the arm being outstretched at full length towards the object, the hand holding the sharpened end of the pencil at right angles to the line of

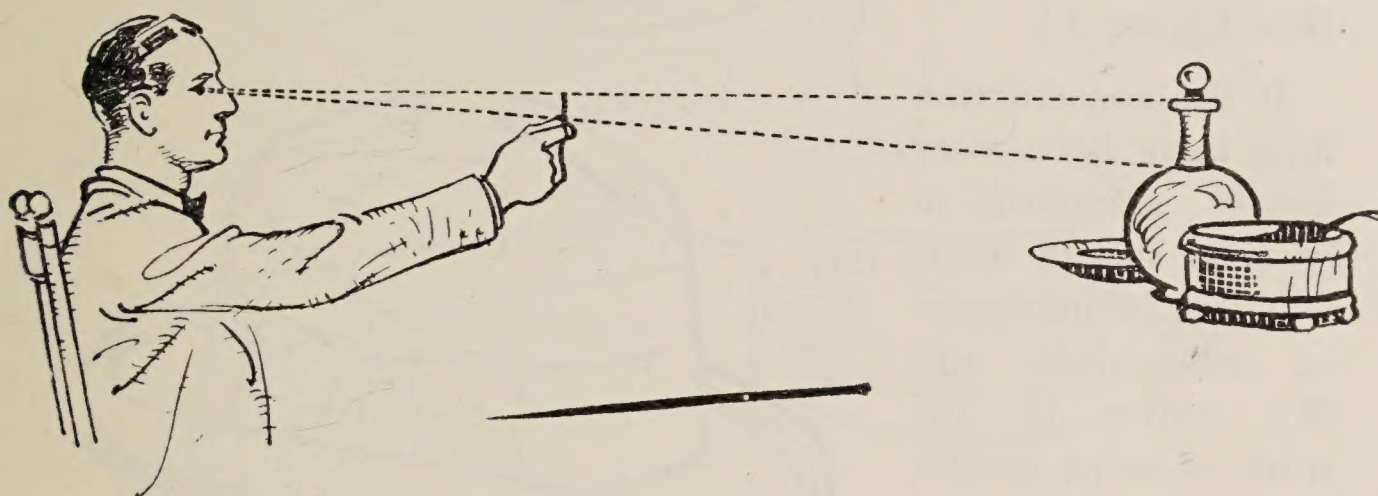


Figure 1

sight from the eye to the object. Measurements can thus be tested, the thumb being allowed to slide along on the pencil until it marks any desired point. (See Figure 1.)

It is essential that the pencil be kept at arm's length, for any change in the distance from the eye will spoil the comparison, the value of the test being lost. It is advisable to take a smaller dimension first and use it as a unit of measurement for the larger dimensions.

This method is useful as a test, but should not be employed to determine the ratios. The drawing should be occasionally placed beside the object, for this will enable the student to correct mistakes readily.

The general form of the object should be lightly blocked in,

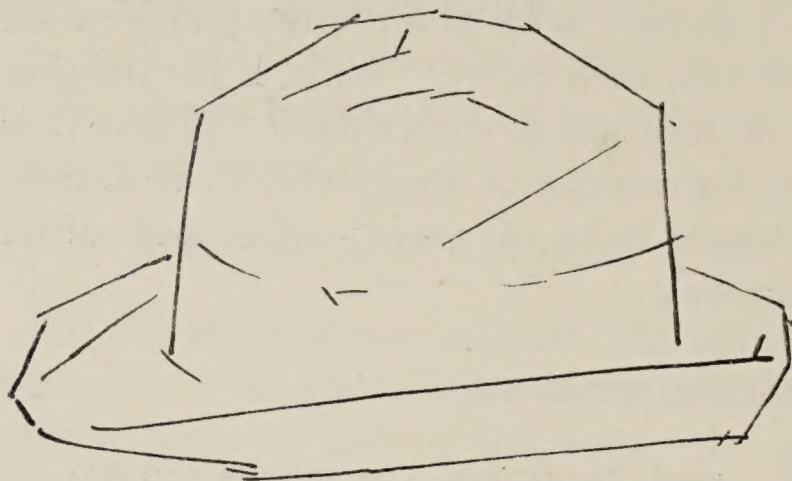


Figure 2

reducing the shape to a few guide lines. This means the simplification of masses, expressing the larger characteristics or peculiarities of the subject. (See Figure 2.)

In the second stage the larger masses are subdivided and more details are added. So far the drawing is a construction diagram, but now the richer part of the detail may be attempted. (See Figure 3.)

If the construction lines have been very lightly sketched in as they should be, it will not be necessary to take them out. We notice in the work of many master draughtsmen that the construction lines are visible, showing how the work has been



Figure 3

gradually built up, how the superstructure has been built upon the structure. This principle, however, cannot apply to all forms of drawing, although in the early stages of one's work, that is, in the case of the beginner, it is advisable.

The eraser should be used as little as possible, except to go over the lines in preparation for the finished outline.

ACCENTED OUTLINE FOR EXPRESSION

The outline should not only border the outside edge, or silhouette, of the object, but also, to some extent at least, should indicate its third dimension; that is, the thickness or roundness may be brought out by variety of line.

Outline is the definition of form and fact. A great deal of thought should be given to this stage of the work, for it is in the expression of line that we reveal the certainty of form. It should be drawn with a free hand, as in the drawing of a fine piece of lettering, and should express the depth and modelling of the object.

Outline may be used in different ways, according to the artist's preference, and according to the material of the object in its surface and texture. We should endeavour to draw lines



Figure 4

that have character, and not merely mechanical lines. Expression may be obtained by varying the thickness of lines, producing what is called an accented outline. (See Figure 4.)

After the student has gained a reasonable facility for drawing in outline, further capacities for its use in expression will be discovered. By the expression and variety of line we shall get

a fuller insight into the subtle gradations of form and the varying textures of natural and artificial objects.

With practice we shall be able to show by the quality of our line the difference between the fine springing curves in the

structure of the daffodil (see Figure 5), and the solid seed centre and stiff radiation of the petals of the daisy, the soft fluffiness of the dandelion puff-ball, and the delicate silky folds of the poppy. It is obvious that to employ the same type of line in all of these things would result in a mechanical monotony, meagre in quality and small in definition of form.



Figure 5

So that textures and surfaces fall within the range of linear expression. One would naturally use lines of totally different consistency and character to express rough or smooth surfaces: to express the difference of value, for instance, between the ivory-like smoothness of an egg and the scaly surface of a pine cone. The firm-set yet soft feathers of the plumage of a bird must be rendered by a different touch from the shining scales of a fish. It is through this variety of line that greater contrasts in form and textures may be represented, and a clearer understanding of values is

established.

LIGHT AND SHADE

Having studied some of the possibilities of outline drawing, we are now ready to go a step further and begin the study of

light and shade. We have already considered how to indicate three dimensions to some extent in outline, and this will lead us deeper into the study of the third dimension, that is, the roundness or thickness of the object.

The student will realize that a more complete study of form will come with a knowledge of light and shade. Actual construction and beauty of line are essential, but, when line and light and shade become merged, we secure a greater depth of expression. If outline may be said to be the bone and sinew, form is the substance and the flesh; both are obviously essential to a complete development of style.

We have seen that even with the limited power of outline it is possible to suggest the actual solidity of objects, to express the graceful beauty of foliage, varying textures, or even the life and motion of animals and man. But for the full representation of animate or inanimate nature, it is necessary to express all those qualities which together constitute their appearance.

The study of tone, or light and shade, is perhaps the most comprehensive and important work on which the student can enter.

SCALE OF VALUES

Value means the relation of tones to each other, and concerns the quantity of light and dark they reflect without regard

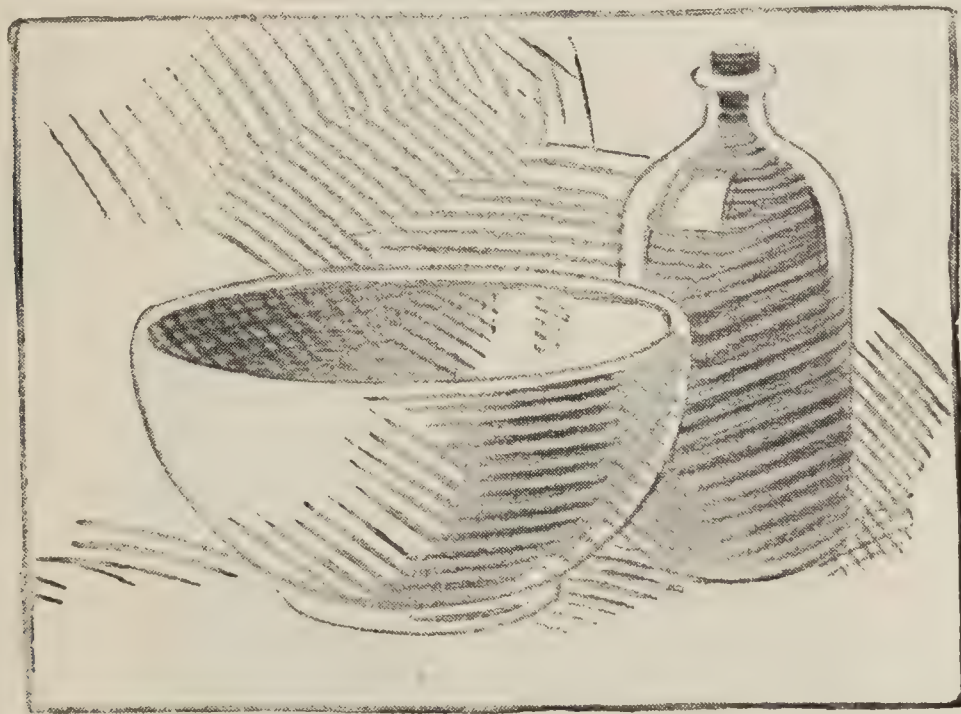


Figure 6

to colour, so that there may be many different colours of the same value.

A light and shade drawing may generally be true to nature in values, and yet suggest the different colours throughout the subject. The range and scale of values may vary greatly. Some pictures run the full scale from white to black—white as its highest light and black as its darkest note. Other pictures

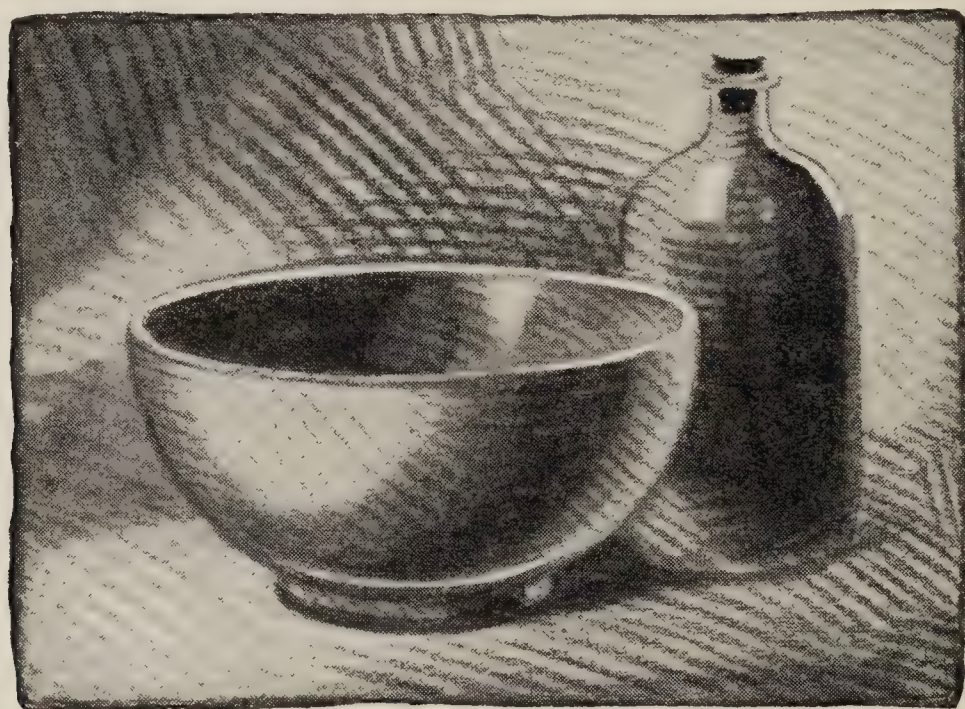


Figure 7

may express much with a very limited range of tone. For instance, in many pictures, the darkest tone may be much lighter than black and the highest light may be far from pure white. Those pictures which only contain the lighter tones of the scale are generally referred to as being high in key, correspondingly low tone pictures are called low in key. (Figs. 6 and 7)

While the scale of values runs from white to black, the number of intervals or notes in the scale depends on the treatment required.

In landscape painting, atmospheric conditions have a great deal to do with determining the range of values. On a gray day when everything is seen through a silver mist, the extreme high and low tones of light and dark are missing.

Most areas of light and shade, particularly when the subject is in a strong light, have clearly defined shapes which explain to us the form of the object; and all these shapes appear to have boundaries where one tone joins another. Therefore,

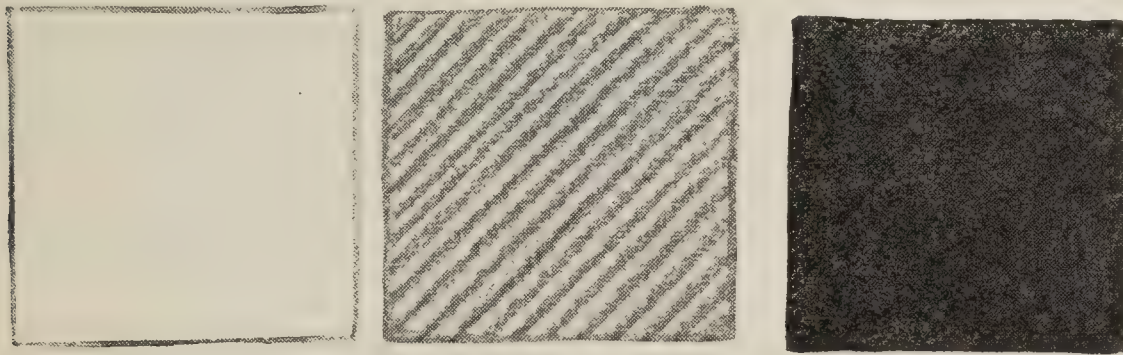


Figure 8

exact degrees of light and shade translate for us the values of colour into values of light, dark, and intermediate tones. (Figs. 8 and 9)

The elementary student will be greatly assisted in understanding the relation of tones and general effects seen in nature if the following principles are observed:

1. Appearances of light and dark are relative, tones being light or dark according to their position. If a light tone is

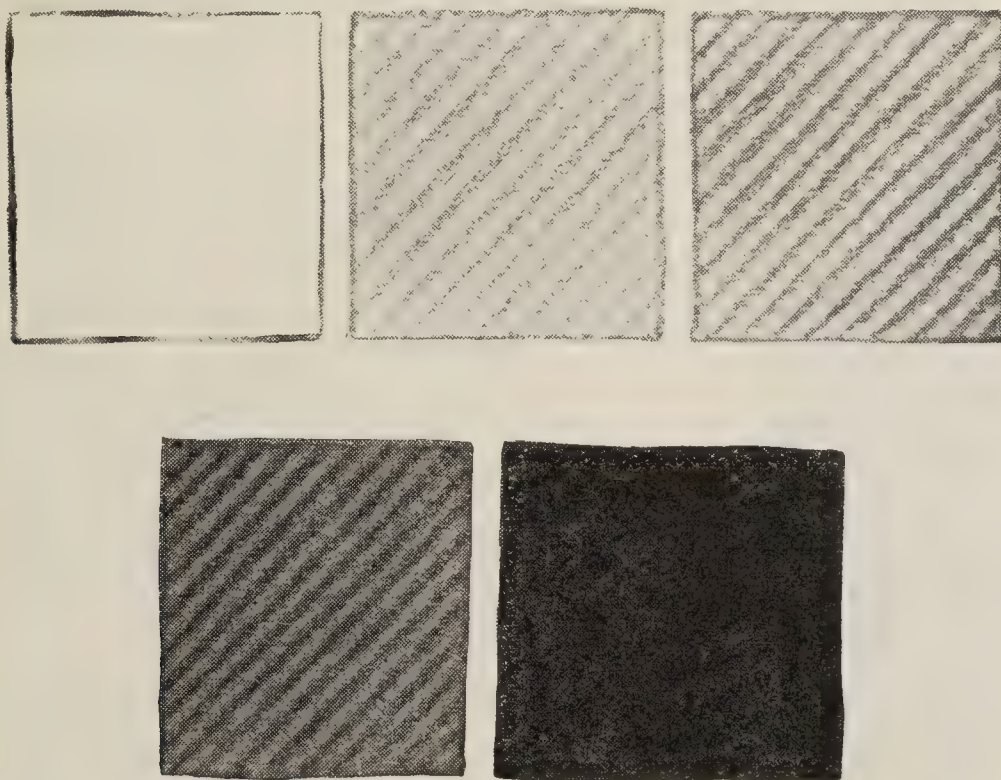


Figure 9

placed against a dark tone, the effect of light will be more intense than if placed against an intermediate tone, or vice versa.

2. The mass of light and the mass of dark cause much of the detail to disappear within those areas, the detail being more apparent in the half tones.

3. In any subject there is one light which is lighter than all others, and one dark which is darker than all others. These may be called the key notes and serve as a basis in judging all other tones.

4. A cast shadow from any object is always darkest and sharpest nearest the object which casts it.

5. When the shadow of any object falls upon two intersecting surfaces, for instance, a horizontal surface supporting a vertical, the shadow must pass continuously from one to the other and change in its direction at the intersection of the two surfaces.

6. Objects are either whole or in part lighter or darker than the parts against which they are seen; therefore the tone values and effects of any object cannot be represented without representing the values of the parts surrounding it.

7. Any object may present an infinite number of different appearances according to its relation to light.

For the beginner the foregoing principles are essential as a basis on which to work, and should be experimented upon by taking a simple object and placing it in various positions and lights.

SURFACES

The effect of light on local colour depends to a great extent on the surface of the object, its texture, opacity, or its transparency. Surfaces can be divided generally into three classes—reflective, non-reflective, and transparent.

Figure 10 shows a very reflective object. Some objects of a highly polished surface reflect back the light, causing sharp

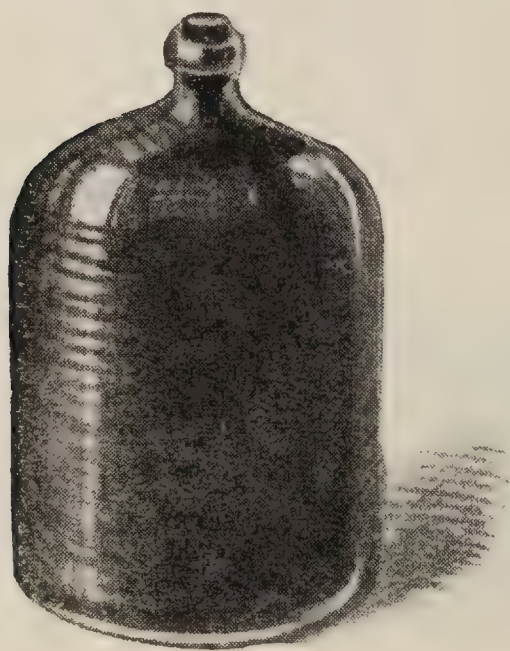


Figure 10

high lights and contrasts. This may be observed on objects of a convex or rounded character, such as a vase, where the surrounding objects are definitely seen in the high lights and reflected lights. Note these sharp contrasts in the illustration of the black bottle.

Contrast this with the non-reflective object. (Figure 11) In this representation of an earthen flower-pot it will be observed that there is an absence of high lights and a greater restriction in the range of tones. This will usually be seen on an object with a non-reflective surface.



Figure 11



Figure 12

Figure 12 shows a transparent object with a reflective surface such as clear glass. In this case the local colour is changed, not only by the light thrown on the object, but by the background, or other side of the object, seen through it. These same surfaces apply in some degree to fabrics such as silks and satins which reflect the light in sharp contrasts; cotton, wool, and such materials, which do not reflect but rather absorb the light; and semi-transparent materials, some of which have a silky surface and reflect the light to a considerable degree, and yet are influenced by what is underneath or behind, much the same as some transparent glass.

The student should study surfaces under all conditions. Out of doors an object may be influenced by the weather and be transformed into a reflective condition by becoming wet. Note the effect of a rainy day on a street scene—how nearly

everything, when wet, reflects the light. Note how objects are reflected on the wet pavement, where under dry conditions the



Figure 13

surface would be absolutely non-reflective, and shows shadows instead of reflections. (Figures 13 and 14 give examples of these two effects.)

A reflective surface throws back or mirrors the object.

A shadow is cast by and from an object.

REFLECTED LIGHT

Another outside element which influences the tone of shadow masses is that known as *reflected light*. No matter where an object is placed, its shadows may be lightened by reflection from surrounding objects or surfaces. On account of these reflections, we generally find the deepest shadow nearer the light parts on any rounded surface.

These reflections are a great aid towards giving life and variety to shadow, but great care should be taken to keep them in proper relation to the rest of the picture, as it is easy to give them undue emphasis.



Figure 14

An example of reflected light is shown in Figure 15, a shaded drawing of a sphere where reflected light influences and lightens the shadow side to a noticeable degree. Note that this drawing is more expressive than Figure 16, which does not show reflected light.

The strongest part of the shade upon the sphere is the portion which separates the light from the shadow. Between this dark passage and the outline of the sphere we get reflected light. This is caused by light which is reflected to the sphere from the object on which it rests. This reflected light is always present. If the surface of the sphere is polished and a bright object is placed near the shadow side, the reflections will be correspondingly bright.

The student can demonstrate reflected light by placing an object in any strong direct light and holding a sheet of paper a short distance from the shadow side. Try this experiment with a round object—say an orange—and note how the reflection from the white paper will noticeably lighten the shadow side.

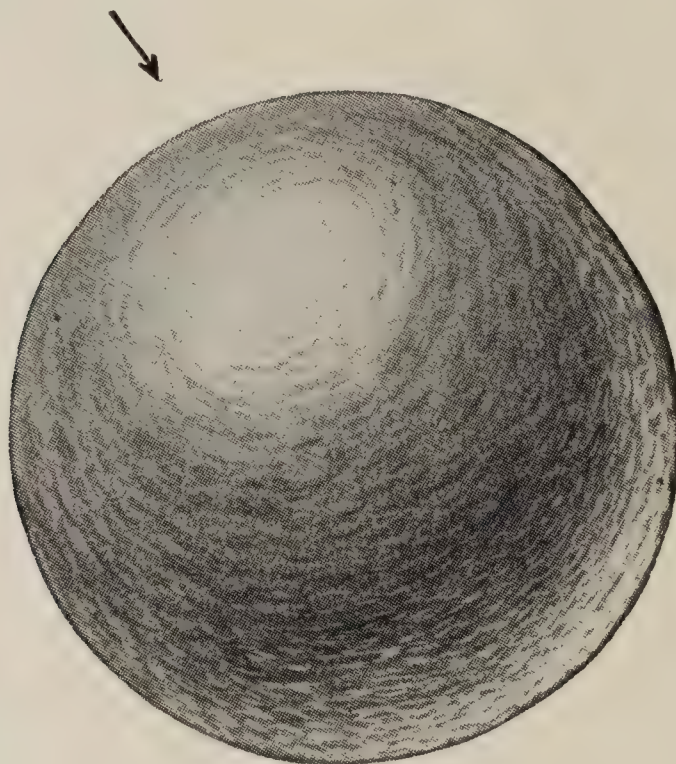


Figure 15

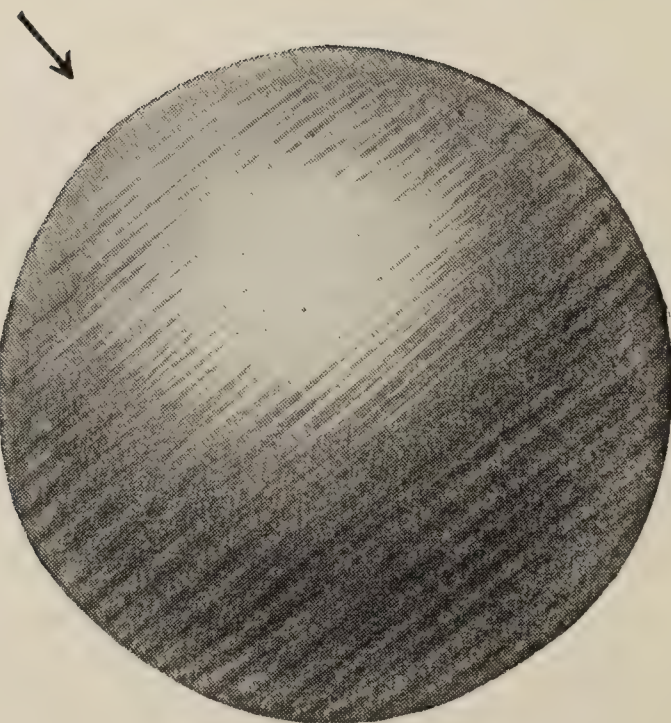


Figure 16

Photographers make use of this fact, and by the use of light screens get rid of heavy shadows.

In shading, both the lighter and darker areas should be kept broad and free from unnecessary detail. The detail which is most important will be found in the half, or middle tones, between light and shadow. It is here that the nice subtleties of form which make for fine drawing should be searched for.

LIGHT AND LOCAL COLOUR

In judging the tone of any object two things must be considered: First, its actual tonal colour—at present we are considering black and white only—and its tone as affected by the light *upon it*. The natural tendency of beginners is to consider *local colour* only, but it should be remembered that light is usually a much more important consideration. For instance, the lighted planes of an object of dark local colour may be actually lighter in tone than a very light object in shadow. It may take close observation to convince one, but it can be proven to be true. Place a black coat or hat under a strong artificial light or bright sunlight and note how the lighted planes appear to be light gray in colour.



Figure 17

There are two kinds of shadow to consider—the shadow on the object itself, caused by part of the form being turned from the light, and the shadow cast by the object on the ground, table, or whatever it rests upon. This latter is called a *cast shadow*.

If the plane or surface on which the shadow is cast is uneven or off the flat, the shape of the shadow will be influenced accord-

ingly and will follow the contour of the surface upon which it is cast. This applies not only to the surface on which the object stands, but if the shadow cast by it falls on any nearby object its shape will follow the planes of that object. Figure 17 gives an example of this. Note how the shadow cast by the post takes on some of the character of the ground on which it falls and follows the contour and angle of the building and clapboards.

The tonal relation between the shadow on an object and its cast shadow may vary greatly. It is contingent largely on the light and on the local colour of the object and the surfaces on which that object casts a shadow. The strength of the shadows on different surfaces must be observed carefully in each case. One rule that usually holds, but this, too, may vary according to lighting conditions, is that the cast shadow will have a slight gradation of tone, the darker tone being nearer the object.

We may take it as a general principle that cast shadows are always darker nearest the object casting the shadow. It is noticeable, too, that the cast shadows are sharp and distinct at this point and gradually soften as they lengthen. Sharpness of shadows is, however, a distinguishing feature of objects that are exposed to one strong artificial light or sunlight. The stronger the light, the greater the contrast between masses of light and shadow, and the less the gradation from one to the other on rounded objects.

DIRECTION OF LINE

This naturally leads us to the subject of *direction of line* in shading. For the present we are considering the simplest forms of shading, and advise students to use the method of expressing tone in open lines. The reason for open lines is that the tendency of the beginner is to make tone by smudging, which causes a very unpleasant, greasy surface and robs the drawing of much of its character. A good general rule that can often be followed is to plan the shading lines to follow the contour of the object to some extent at least. This is shown in the drawing of the sphere (Figure 15), and of the cylinders (Figures 18, A, and 18, B, and 19). Figure 19 is a more difficult example of the use of line in shading.

By following the contour with the shade lines a double purpose is accomplished. The surface contour and perhaps the texture of the object is indicated to some extent, and a shadow tone is produced as well. Again, the direction of the line may indicate the nature of the plane in shadow. A vertical plane may be suggested in shadow by vertical lines. Correspondingly, a horizontal plane would be shown with horizontal lines.

These are not iron-clad rules, but rather suggestions to start the student thinking out his own problems. At the start the working out of such problems as the direction of line seems

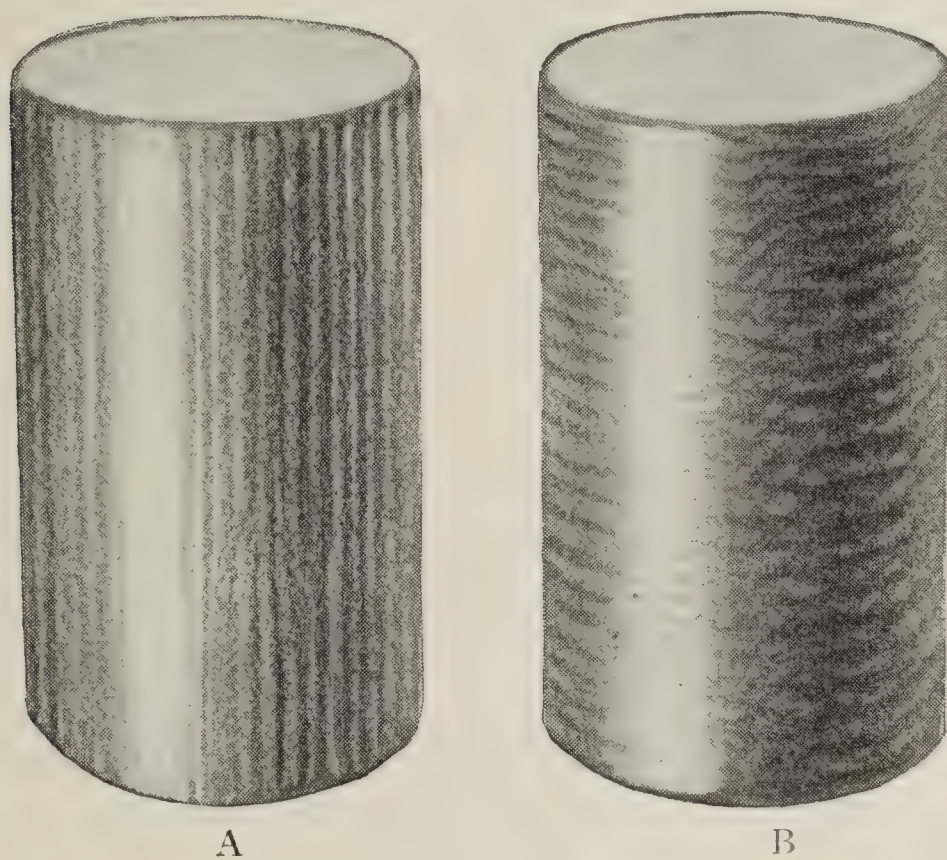


Figure 18

rather a complicated study, but later on it will be reasoned out with less effort.

A good method of developing freedom of line in shading is to practise filling in small spaces with parallel lines of uniform strength to produce an even tone. Students should endeavour to cultivate a free movement of the pencil at any angle and avoid changing the position of the paper too often.

In the shading of curved surfaces by line, care should be taken to avoid a hard and abrupt ending to the lines indicating

a finely gradated tone. Most shadows on a curved surface have some gradation, and, if the lines follow the contour, they should vary in strength from the darkest portion to the lightest. If too abrupt, they will destroy the luminosity and beauty of any passage in which they occur.

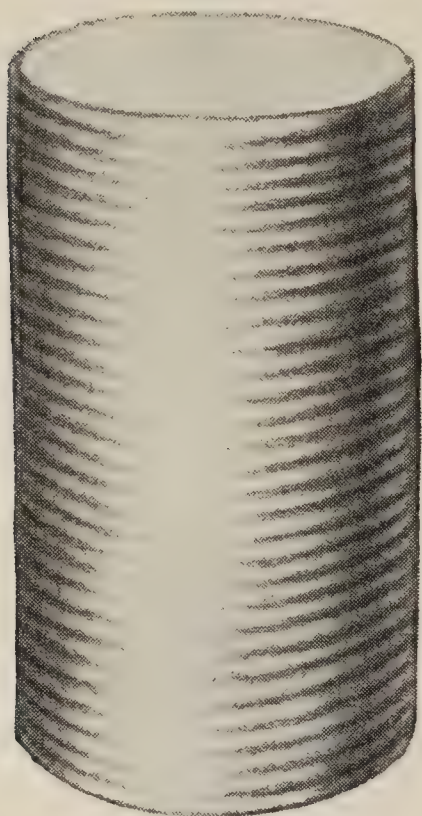


Figure 19

One of the grave dangers in the teaching of light and shade has been in the care of mere manipulation rather than the study of tone, of elaborately finished drawings rather than the power to judge values. This generally leads to a sad lack of understanding of the essentials of form. The richness of form can only be expressed through a proper understanding of tone values.

PEN DRAWING

In taking up the study of pen and ink drawing, the student has before him a subject of which the possibilities for expression will never be exhausted, but in this study he may hope to achieve good results in less time, in relation to the full scope of the medium, than in the study of colour. Though any less searching and serious inquiry will not exhaust the subject, an occasional journey into this interesting field will reveal great opportunities for expression. The study of the subject fascinates and lures to deeper research and observation, until we become enthusiasts.

From this point onward, if it is taken for granted that composition, drawing, and other fundamentals have not been neglected, the student of the pen and ink medium should soon begin to show evidence of individual character in his work, and this individuality, combined with a thorough knowledge of the broad principles governing this medium, will enable him to produce work of some distinction. Then, and not till then, will he realize the possibilities and scope of the pen and ink medium.

The opportunities for expression for the pen and ink draughtsman are practically unlimited.

As the student advances with his work and acquires a greater skill and power of observation, he will find it possible to combine these fundamentals with his own personal ideas evolved from experiment, which combination will develop eventually an individual character in all his work.

Just here let us note some of the work of well-known pen draughtsmen—Frank Brangwyn, Edmund Sullivan, Gordon Grant, and our own Canadian illustrator, Charles W. Jefferys.

Few who have studied pen and ink illustration would ever mistake the work of one of these men for that of another. Each artist takes his own particular view of any given subject and handles it in his own way, and yet in the work of all will be found an observation of the fundamentals.

The primary attitude that must be taken in the study of pen and ink drawing is that, generally speaking, we are working in a tonal medium. The facts that we are using a point rather than a brush, that we distribute tone in lines of varying degrees of length, shape, and thickness, rather than washes as in wash drawing, are merely the technical features of the medium; and it is this feature that properly understood gives line its charm. It is an advantage rather than a restriction.

Pen drawing proper is likely to lose its character if it assumes the finish of wash drawing, such as elaborate massing of grays. Freehand pen drawing must be direct. Learn to pick out the vital features for line rendering and do not force the medium to do that for which it is not intended. In advertising illustration many innovations are resorted to, but in the best work it will be found that the artist has been consistent.

This apparent limitation encourages simplicity, and the pen draughtsman aims at interpretative rather than imitative rendering. This principle is responsible for the great beauty possessed by good pen and ink drawing.

MATERIALS

INKS.—A good quality black India ink.

PENS.—The beginner is advised to use a fairly broad pen point—say Gillott 303.

The choice of pen, however, is governed by the type of subject to be drawn. For great flexibility and delicacy, Gillott's 290 lithographic pen is recommended. Reed pens and quill pens are used frequently upon large drawings and in doing lettering.

PENCILS.—For general use a BBB or BBBB pencil is best.

PAPER.—It is not essential to use the expensive qualities of drawing paper. Common smooth offset or cartridge paper, obtainable from any wholesale dealer, and possibly from any printer, is inexpensive and very satisfactory. A large writing pad of bank bond or kid finish paper is excellent.

ERASER.—A soft white eraser is useful, but erasing should be done as gently as possible so as not to destroy the surface of the paper. Have a pointed pen-knife at hand to scrape out parts and make the necessary alterations.

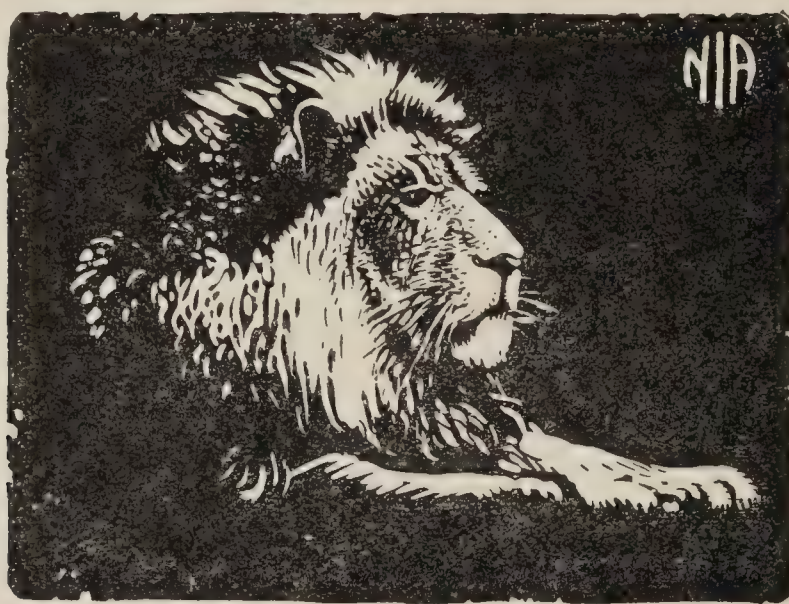


Figure 20

BRUSHES.—Where a bold, vigorous effect is desired, it can be effectively obtained by the use of the brush. It is often desirable to combine the pen and the brush, thereby producing results of great richness and power. The sable brush is the most satisfactory and durable, but must be properly cleaned after using ink. Nos. 2, 4, and 6 will give a sufficient range for general purposes.

DRAWING PAPER FOR PEN WORK.—The best surface in drawing paper for general use is the Bristol Board, which may be obtained in varying thicknesses. For the beginner, any smooth, hard-surface, white paper will suffice.

USE OF CHINESE WHITE

Many fine effects can be obtained by the use of white on black or tinted paper. (See Figures 20 and 21.) However, in free-line pen drawing a sparing use of white paint of any kind is advisable. The student should try to accustom himself to do without it if possible, especially in the early stages. Time may not act as strongly on the white paint as upon the paper, resulting in objectionable blotches in the drawing. In fact, the use of white to any extent is bound to be noticeable, and therefore displeasing on a drawing that calls for purity of line and quality. When white paint is used in altering a drawing, it must be remem-

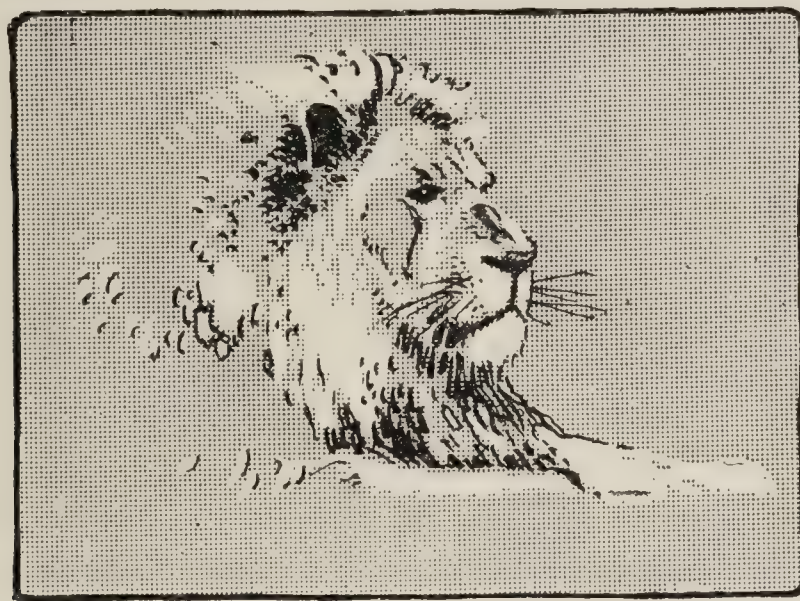


Figure 21

bered that pen and ink will not work over it, therefore any black put on must be lamp black applied with a brush.

POSITIONS OF THE HAND

In determining the position of the hand for the proper manipulation of a pen, the first essential is that the pen be drawn in the direction and angle that will allow a free line without digging into the paper.

FIRST POSITION

The little finger rests upon the paper as in writing, but with movement from the wrist, thumb, and forefingers sufficient to get various directions of line not necessary in writing. In this

position the scope of the stroke is practically limited to the action of the thumb and forefinger. This position will not admit of any great freedom, but is necessary where accuracy of drawing and detail is required.

SECOND POSITION

The little finger is allowed to move freely on the surface of the paper or is held above it, the action coming from the wrist and forearm. For large work this position is essential, as it calls for the free use of the forearm. Experiment in making lines in various directions and thicknesses without turning the paper.

The student may find that in his case some modification of these principles will help him. Just as many good writers hold their hands in various positions, so it is with the pen artist, he may evolve from certain fundamental rules a method used by few others, but which he may find excellent. One rule that we may safely lay down is that of holding the pen freely. Hold the pen just firmly enough to allow free play from the fingers, wrist, or forearm, without strain. As skill in the handling of the pen increases, it will be found that all sides of the pen come in to use at times, and that lines of a certain character cannot be obtained except by the use of its side or corner. Remember always that tone is put in with the pen just as with a brush, only the method is different.

TONE IN LINE WORK AND EXERCISES IN LINE

Thin lines placed close together may produce a deeper tone than thicker lines farther apart. (See Figure 22.) Thus it will



Figure 22

be seen that the tone of a surface is distinct from the strength of the line only.

Practise making lines in various directions other than vertical and horizontal. These should be practised with increasing rapidity, after the student has learned to control his pen during a slow stroke. This exercise should be done without turning the paper. This will develop control of the pen when drawing in any direction.

VARIATION IN THICKNESS AND DIRECTION OF LINE

Rounded or undulating surfaces show gradations of tone which are due to lighting. The light and shade may be indicated in different ways—by straight lines of varying thickness, or by lines varying in strength and direction.

There is an underlying principle which governs the direction of lines in many cases based on the perspective and drawing of the object. Take for an example the shading of the cylinder and cube.

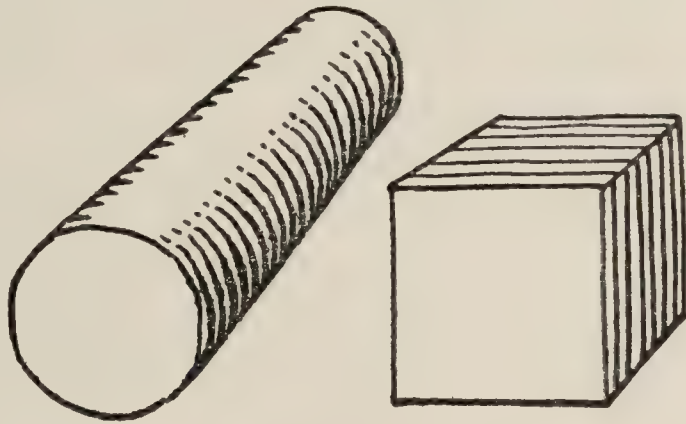


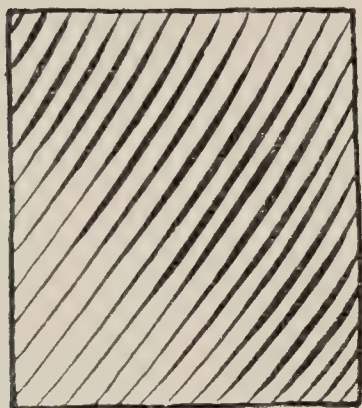
Figure 23

(Figure 23) Examples of the application of this principle may be seen in the modelling of faces, hands, drapery, and trees, by the great wood engravers and pen and ink draughtsmen.

Study the work of good wood engravers, much of whose work can be found in old magazines and books dated about 1890. It will be found very instructive to observe the direction and strength of line used. However, the student should not be influenced too greatly by the wood engravers. The extreme accuracy of parallel lines used by them should not be the model of the pen artist. Similar underlying principles govern the direction of line in both cases, but the two arts vary greatly in their fundamental aims.

EXERCISES IN LINE

(See Figures 24, A and B.) The student may feel that these lines look simple and unimportant, but they and many hundreds



A



B

Figure 24

of others are the foundation of the study of pen technique. It is not so much the ability to make them once, as the ability to reproduce them whenever the occasion arises, and not individually only,

but in a series as required. The very finest pen drawings have been made of series of just such simple lines, which separately were just lines, but collectively gave the drawings their fine tone quality.

The lines in a drawing may be roughly divided into two classes, *primary* and *secondary* lines. The primary lines are those which indicate form in themselves individually. The secondary lines are those which collectively indicate tone, colour, texture, etc.

The simple method of massing lines for the indication of tone by their arrangement side by side in any direction is the most generally used. These lines alternate with white spaces between them, and the whole effect is that of a gray tone. The tone will vary in depth in proportion to the thickness of the

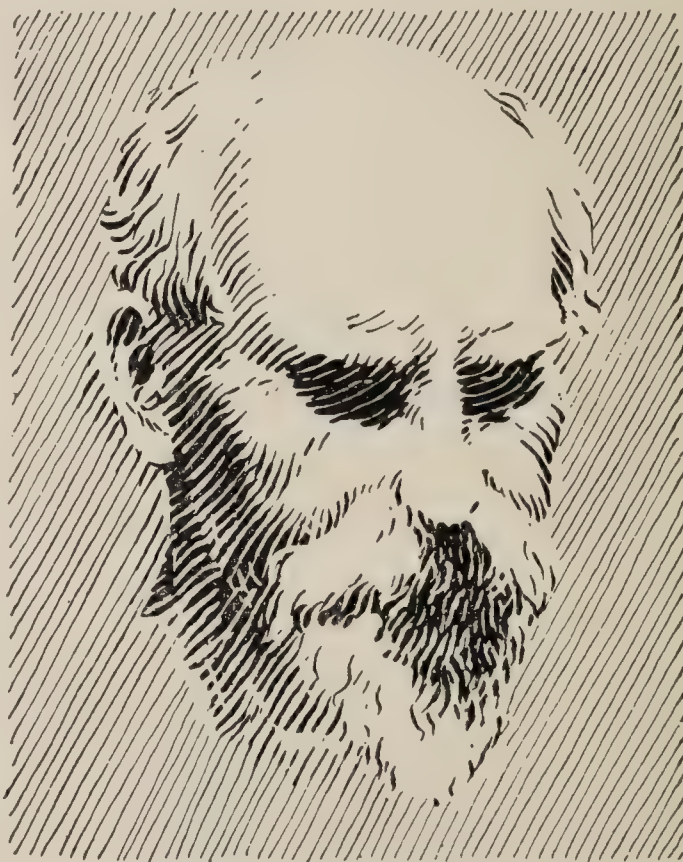


Figure 25

black lines and their relation to the white spaces between. (See Figure 25.)

RULED LINES

These are practically uniform except in thickness, and therefore give a mechanical effect. However, when they serve the purpose it is quite right to use them. In mechanical drawing of furniture, utensils, etc., the ruler and the instruments should be used wherever required.

A common idea is that a *fine line* is necessarily a delicate one, or on the other hand, that a *thick line* has qualities of boldness or strength, or is artistically inferior to a fine one. This is far from being the truth, for these qualities are absolutely relative to the space in which the lines appear.

TONE IN LINE WORK

This is not dependent upon mechanical accuracy of line. The lines may be quite irregular and, in fact, a close examination of any good pen sketch might fail to reveal any two lines as being absolutely parallel mechanically.

A space covered completely with ink would represent a black tone, the paper a white tone. Intermediate tones and gradations of tone are produced by the combined effect of a number of lines and a number of intervening white spaces on a given area.

Strictly speaking, each line is a black tone, and each intervening space a white tone; but when a surface is covered with black tones with white spaces between, the black lines and white paper blend, in effect, into a tone.

The tone of a surface will depend upon the thickness of the lines and their distance apart. Neither the number of the lines nor their thickness alone will determine depth of tone. They must be combined.

GRADATION

In Figure 26, A, gradation is indicated by lines of equal thickness being placed at gradually increasing distances apart. In Figure 26, B, the effect is produced by grading both the

thickness of lines and the distances apart. Figure 27, A,

demonstrates the use of tapering lines placed side by side with equal white spaces between them. Figure 27, B, shows another method, by the use of short lines becoming heavier towards the dark.

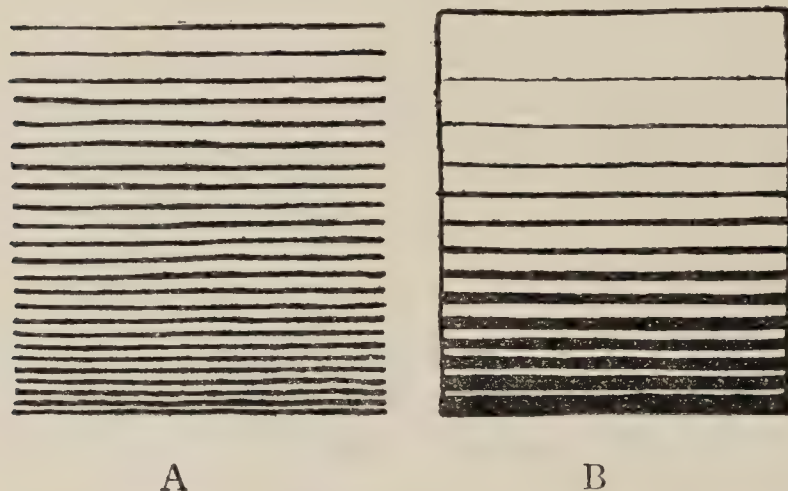


Figure 26

These methods, and many modifications based upon them, are commonly used in pen drawing. Figure 27 and Figures 26, A and B, are drawn somewhat mechanically, in order to illustrate their purpose more clearly. In a free-hand pen drawing the lines would not be so individually accurate.

The student at first should practise these line tones slowly until able to control the line. He should increase the speed of making these lines as he grows in assurance in making them. The speed with which a line is drawn has much to do with its quality.

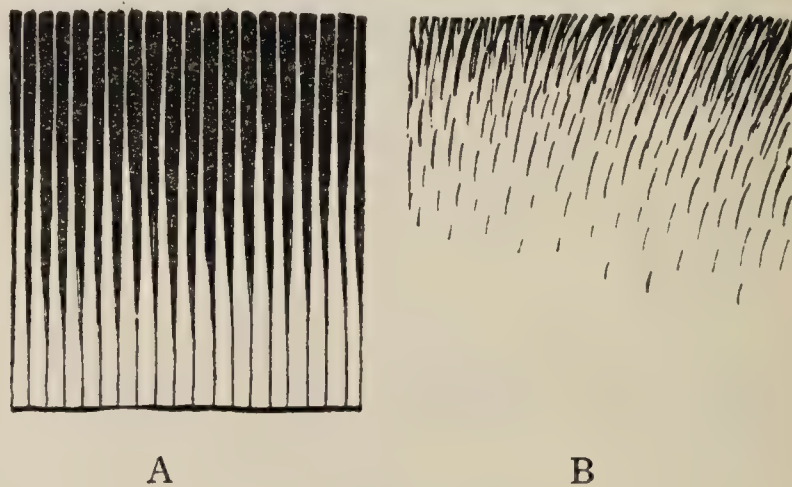


Figure 27

RADIATION

Figure 24, B, above, illustrates the tapering lines used again in a radiating combination such as might appear around a light. This direction of line is very important. The lines should logically follow the direction of the movement.

CROSS-HATCHING

Some artists condemn cross-hatching as an artistic crime, and yet, if intelligently used with reserve, it has its value in arriving at the desired result. It is too often used to cover uncertainties and faults in technique.

For the beginner it would be wise to eliminate it as far as possible from his work, for the reason that if he forms the habit, it is hard to break, and he will lean too heavily upon it in moments of perplexity, instead of working out his salvation in a purer, freer line. However, cross-hatching is quite legitimate, and should not be utterly condemned without a fair consideration of its value at times.

LINE IN CAST SHADOW

The direction of light, the shape of the object, the texture of the material on which the shadow falls, the composition of the drawing—these four factors must influence the artist in his selection of line work for cast shadows. No hard and fast rules can be formulated, for the circumstances are too varied. However, there are some logical aspects to be borne in mind, which may prevent aimless scribbling on the part of the beginner.

TEXTURE

The interpretation of surface requires various types of line and, while conditions vary, there are certain broad principles that, if observed, will help the artist to think for himself where apparently there is no outstanding governing factor. Broadly speaking, short, jerky lines interpret rough or mat surfaces better than will long, flowing lines. In hard, glistening surfaces the opposite usually holds good, and the smooth stream lines will answer the purpose better.

Note the difference in textures of the ground, rocks, etc., in Figure 28, and the texture of the flesh of the figure and foliage. In the handling of pine foliage, note that an attempt has been made to indicate the form of the needles and the manner of their growth. In Figure 29 the surface of a black bottle is contrasted with the dull finish of a felt hat.



Figure 28

thetic beginning and ending. The line is really begun in the air before the pen touches the paper, and then by gentle pressure is thickened toward the middle, and again relaxed until the pen is lifted. This line is adapted to the harder or more dense textures, its smoothness expressing the surface of the object.

The modelling of objects in line is dictated to a great extent by the character of the object. As a contrast take the Indian's figure, the tree trunk, and the rocks. The comparative smoothness of the flesh of the Indian must be interpreted, and at the same time the lines should denote the modelling.

As will be noted, a more regular line is employed upon the figure. It has a more sym-



Figure 29

VALUE OF THE WHITE PAPER

Quite large spaces of white paper must be left untouched by the pen (or at most the tone lowered slightly in parts), to represent water, sky, snow, walls, or distant mountains, as in the Indian illustration, Figure 28. To attempt to completely cover the white paper in an effort to depict the exact colour and texture of all elements of the composition is a great mistake in freehand pen drawing.

By so doing, the artist is casting aside a very valuable medium of expression. His drawing will look overworked and uninteresting. Some of the finest pen drawings have been those in the making of which the white paper was made to play its part to the fullest advantage. Note the work of Charles W. Jefferys. This artist rarely misuses a line or places a tone where the white paper will serve his purpose better.

White paper plays a part in a drawing that is just as important as the ink with which one works. The shape inclosed by any series of lines is as much a part of the general scheme as the lines that inclose it.

LOCAL COLOUR AND SURFACE

With the limitations of the line medium in view, it is best to confine interpretation of local colour to a *few simple tones* rather than that of the whole range. All very light tones should be omitted, although it is true that there are times when the colour of the subject is so important as to necessitate some attempt at suggestion for the purpose of discrimination.



Figure 30

For example, the difference between a *white man* and a *negro* is one of colour rather than form, and this being the outstanding feature of the subject, the artist must express it—Figure 30. In this case we draw the essential lights upon a dark ground, with the result that black predominates in the drawing. This is illustrated in the handling of the black hair of the girl's head in Figure 31.

Build up the blacks by means of lines and masses, and leave the necessary whites. Black, in this instance, should bear the same proportion to the mass as does white in the drawing of a light object. The form is revealed by the lights rather than the shadows, and care must be used in their selection.



Figure 31

In the case of the negro, the surface of the flesh reflects considerable positive light, as does the surface of a polished object, such as a stovepipe, silk hat, or ink bottle. We must, therefore, make full use of these reflections in the portrayal of a black polished surface. In a rougher or unpolished surface, such as a black felt hat, reflection is reduced to a minimum, and, if realism is desired, light and dark tones must be relied upon to a greater extent.

The blacks will have a tendency to less density, and the less reflective quality of the surface of the felt will tone down the high lights. The felt hat absorbs light, while the silk hat reflects it.

AERIAL PERSPECTIVE IN LINE

The artist can draw or depict only the relation of one tone to another, and his task is to so use lines that different parts of the subject appear, not only by their drawing, but also by their contrast to tone values, closer or further away than others. This is one of the most important factors in freehand pen drawing, and is absolutely necessary if the drawing is to have atmosphere.

Take as an example two rows of posts receding toward the horizon. We will suppose that the posts on the left are painted *white* and those on the right are painted *black*. As we look along the row of white posts, the farther away they are the less white they appear; on the other hand, the black posts become less black and more gray, until, at a certain distance from us, there will be no apparent difference in the colour of the rows.

Figure 32 illustrates the principle in squares. It is as though nature placed a screen between us and distant objects. And literally she does, for the atmosphere acts as a screen in direct proportion to the distance the object is from the eye. In pen drawing, above all other mediums, this principle must be made use of and must be emphasized rather than under-valued.

The artist desiring to become a line technician would be well advised to study the pen drawings of master draughtsmen, make a collection of good draw-

ings in the styles preferred, study them at his leisure, and compare the means by which various artists achieved good results by the employment of various methods of expression.

Pen technique is as personal as handwriting, and in time the student will be able to identify the work of any well-known artist at a glance, even without looking at the signature that generally appears upon a drawing.

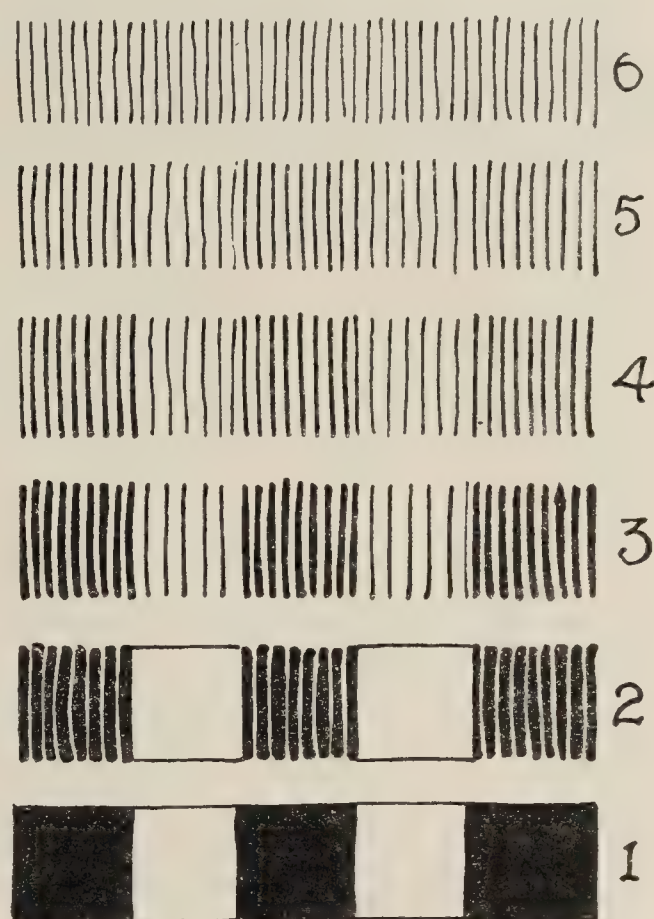


Figure 32

SELECTION AND OBSERVATION

The pen artist's ability is indicated in a great measure by his skill in selection of what is essential and his rejection of

non-essentials. Often the laboriously finished drawing falls far short of the preliminary sketch, in which we were concerned only with getting quickly the spirit and action of our subject.

This vitality and life in the sketch was arrived at mainly because we had not time to bother with unnecessary details. This example should be borne in mind in making a composition. Get the essential action and character first.

The student must remember that construction is more important in his work than ornament. A chair that will not stand is necessarily an ugly chair, no matter how much fine finish is put upon its shading and carving.

Beauty in a given line is simply the faculty of that line to adequately serve its purpose.

Therefore a pen drawing, to be beautiful, must be made up of lines that express and interpret properly what is intended by the artist. If the subject is worth expressing in line and the expression is clear, there will necessarily be something beautiful in the result.

SUGGESTED EXERCISES

(In all cases the objects used for practice should be simple in form.)

1. Make two drawings in pencil outline of a group of two objects, having as the basis of one the cube, and of the other the cylinder. The drawings should show:

- (1) The blocking in and construction
- (2) A finished drawing in outline.

2. Make three outline drawings of objects showing variety of forms, such as a wheelbarrow, table, garden roller, or any interesting objects that will give opportunity for expressing and applying the principles of perspective.

3. Make a drawing in outline of a group of objects to suggest a definite subject and to fill a square, triangular, or circular shape. Such subjects as Washing Day, Preserving, Gardening, or Music may be attempted. Emphasis should be placed on an interesting arrangement.

4. Make a drawing in accented outline of a flowering plant, showing its general growth and an analysis of certain parts, such as a plan of the flower, joints of stems, various views of leaves.

5. Arrange a group of objects of varying textures and surfaces, such as a glass vase, bird, shell, and drapery, and render same in outline, trying to express the quality of surface and texture.

6. Make two drawings each of a shaded cube, a sphere, and a cylinder. In each case have one lighted from the left, and the other from the right. Indicate reflected light in the drawing of the sphere, noting carefully the gradated tones which convey the roundness of the object.

7. To demonstrate your understanding of the principle of cast shadows, make two drawings of a familiar object with its shadows cast as follows:

- (1) On a flat or even surface,
- (2) On an irregular surface.

8. Make a drawing of a glass object in light and shade:

- (1) Placed against a light background,
- (2) Placed against a dark background.

9. Select three objects of different surfaces—reflective, non-reflective, and transparent. Arrange these objects in a pleasing still-life group, and combine them with fruit or foliage. Make a drawing in light and shade of same.

10. Make separate drawings of a polished black shoe and a black felt hat, showing by your treatment how the two surfaces can be expressed.

11. Make a drawing in pen and ink of the corner of a room, introducing one or more objects in the foreground

BIBLIOGRAPHY

1. Significance or Flower Drawing with the Children. Elizabeth S. Ault. \$2.25. I. W. Northend, West Street, Sheffield, England.
2. Line and Form. Walter Crane. \$2.50. G. Bell & Sons, London England.
3. Light and Shade. Cross. \$1.00. Ginn & Co., New York.
4. Model Drawing. W. A. Rudd.
5. The Psychology of Drawing. F. C. Ayer. \$1.50. Warrick & York, Baltimore, U.S.A.
6. Pencil Sketching. G. W. Koch. \$1.50. The Prang Co., New York.
7. Drawing for Art Students. Seaby. \$1.50.

